



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/251,998	02/19/1999	RICHARD BAXTER HULL	5-4-1-4	3940

7590

11/03/2005

RYAN, MASON & LEWIS LLP
1300 POST ROAD
SUITE 205
FAIRFIELD, CT 06430

EXAMINER

ENGLAND, DAVID E

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

MAILED

NOV 03 2005

Technology Center 2100

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/251,998
Filing Date: February 19, 1999
Appellant(s): HULL ET AL.

Kevin M. Mason Reg. No. 36597
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 08/11/2005 appealing from the Office action mailed 12/01/2004.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Patent Application, Serial Mo. 10/274579.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1 – 21 are presented for examination.

Response to Arguments

In view of the appeal brief filed on 06/29/2004, PROSECUTION IS HEREBY REOPENED.

New grounds of rejection are- set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or, request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Applicant's arguments, see page 4 of Arguments, filed 06/29/2004, with respect to Obvious-type Double Patenting have been fully considered and are persuasive. The rejection of Obvious-type Double Patenting has been withdrawn.

Applicant's arguments with respect to claims 1 – 21 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “determining whether a task is eligible for eager execution by considering at least (1) a state of the task and (2) whether execution of the task results in the initiation of a side-effect action” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 – 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations of claims 1 and 12 that state, “determining whether a task is eligible for eager execution by considering at least (1) a state of the task and (2) whether execution of the task results in the initiation of a side-effect action”, is unclear in the specification. Although, there are areas in the specification that state the word “side-effect action”, it is unclear as to what/where specifically the execution of the task resulting in a initiation of a side-effect action is included in the eligibility for eager execution. Applicant is asked to point to specific areas in the specification that correlate to the drawing of the invention.

Claims 2 – 11 and 13 – 21 are rejected under 35 U.S.C. 112, second paragraph, for there dependency on claims 1 and 12.

Claim Rejections - 35 USC § 102

Art Unit: 2143

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1 – 3, 5, 9, 12 – 14 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Borkenhagen et al. U.S. Patent No. 6697935 (hereinafter Borkenhagen).

As per claim 1, as closely interpreted by the Examiner, Borkenhagen teaches a method for operation of a workflow system for processing an object by executing a plurality of tasks, one or more of said tasks each having one or more associated enabling conditions indicating whether the task is to be executed for said object, (e.g. col. 5, line 66 – col. 6, line 8, “...*a plurality of bits, each associated uniquely with one of a plurality of thread switch control events...*”, interpreted as enabling conditions setting), and wherein execution of at least one of said tasks results in initiation of a side-effect action performed by a component external to

Art Unit: 2143

said workflow system, said method comprising the steps of, (e.g. col. 21, lines 12 – 26, “*external event*”):

determining whether a task is eligible for eager execution by considering at least (1) a state of the task, (e.g. col. 18, line 64 – col. 19, line 20), and

(2) whether execution of the task results in the initiation of a side-effect action, (e.g. col. 18, lines 37 – 51, “*The priorities of the threads can be adjusted by the thread switch manager software through the use of one or more instructions, or by hardware in response to an event.*”);

executing the task using eager execution if the task is determined to be eligible for eager execution, (e.g. col. 18, line 64 – col. 19, line 20).

As per claim 2, as closely interpreted by the Examiner, Borkenhagen teaches determining that a particular task whose execution results in the initiation of a side-effect action is eligible for execution only if it is determined that the enabling condition associated with the particular task will evaluate to true as determined by the state of the particular task, (e.g. col. 20, lines 7 – 34, “*...thread switch control register 410 has a value of one...*”).

As per claim 3, as closely interpreted by the Examiner, Borkenhagen teaches determining that a particular task whose execution does not result in the initiation of a side-effect action is eligible for eager execution prior to determining that the one or more enabling condition associated with the particular task will evaluate to true, as determined by the state of the particular task, (e.g. col. 20, lines 35 – 57).

As per claim 5, as closely interpreted by the Examiner, Borkenhagen teaches whether the task contributes to the production of a target value, (e.g. col. 3, line 55 – col. 4, line 6).

Claim 9, 12 – 14 and 16 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 6, 7, 8, 15, 17, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borkenhagen (6697935) in view of Boutaud et al. (6253307) (hereinafter Boutaud).

As per claim 4, Borkenhagen teaches all that is disclosed above but do not specifically teach partially evaluating said enabling conditions. Boutaud teaches partially evaluating said enabling conditions, (e.g. col. 45, line 58 – col. 46, line 41, *“If the test is true, the next instruction(s) are executed. If the condition is false, each conditioned instruction is replaced by a NOP.”*). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Boutaud with Borkenhagen because utilizing a very common

algorithm/programming code, (i.e. “If, Then, Else”), would cause for a faster evaluation of enabling conditions, (i.e. skipping other conditions in the “Else” branch, example “else (End)”).

As per claim 6, Borkenhagen teaches all that is disclosed above but do not specifically teach determining that a particular task is unneeded for processing of the object based at least in part on partial evaluation of an enabling condition of a task which depends on output of said particular task. Boutaud teaches determining that a particular task is unneeded for processing of the object based at least in part on partial evaluation of an enabling condition of a task which depends on output of said particular task, (e.g. col. 45, line 58 – col. 46, line 41). It would have been obvious to one skilled in the art at the time the invention was made to combine Boutaud with Borkenhagen because it would be advantageous for a system to utilize a very common algorithm/programming code in many different application throughout the system, (i.e. using for side-effects and tasks), and is therefore utilized for similar reasons as stated above

Claim 7 is rejected for similar reasons as stated above because if a system could determine that a task is unneeded for processing of the object then it is obvious for the system to know that the other tasks are needed, “necessary” for processing. If not, then the system would just label all the tasks that are unneeded and no tasks would be processed.

Claims 8, 15, 17, 18 and 19 are rejected for similar reasons as stated above.

Claims 10, 11, 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borkenhagen (6697935) in further view of Van Praet et al. (5854929) (hereinafter Van Praet) and Smith et al. (5561762) (hereinafter Smith).

As per claim 10, Borkenhagen teaches all that is disclosed above but do not specifically teach wherein a memory of said workflow system stores a graph representing data flow dependencies and enabling flow dependencies between tasks and enabling conditions, said method further comprising the step of:

propagating changes through said graph based on new outputs of completed tasks. Van Praet teaches wherein a memory of said workflow system stores a graph representing data flow dependencies, (e.g. col. 8, lines 49 – col. 9, “*enabling condition*”, line 52 & col. 22, lines 7 – 14 & Figs. 7 – 11), and enabling flow dependencies between tasks and enabling conditions, (e.g. col. 8, lines 49 – col. 9, “*enabling condition*”, line 52 & col. 22, lines 7 – 14 & Figs. 7 – 11). It would have been obvious to one skilled in the art at the time the invention was made to combine Van Praet with Borkenhagen because it would be more efficient if a user had a record of graph representation of the flow dependencies between tasks and enabling conditions so to update a system and keep records of up-to-date information. If records were not updated, the system could call in information that is out-of-date and cause errors in the system.

Van Praet does not specifically teach said method further comprising the step of:

propagating changes through said graph based on new outputs of completed tasks. Smith teaches said method further comprising the step of:

propagating changes through said graph based on new outputs of completed tasks, (e.g. col. 5, line 51 – col. 6, line 50). It would have been obvious to one skilled in the art at the time the invention was made to combine Smith with the combine system of Borkenhagen and Van Praet because of similar reasons as stated above.

As per claim 11, Borkenhagen teaches all that is disclosed above but do not specifically teach said step of propagating changes is based on predefined propagation rules. Van Praet teaches said step of propagating changes is based on predefined propagation rules, (e.g. col. 11, line 9 – col. 12, line 60). It would have been obvious to one skilled in the art at the time the invention was made to combine Van Praet with the combine system of Borkenhagen and Smith because it would be more efficient for a user to keep track of trends in new outputs of completed tasks and enabling conditions if there were a set of predefined propagation rules, (i.e. algorithms), to aid in the graphing of new outputs of completed tasks and enabling conditions.

Claims 20 and 21 are rejected for similar reasons as stated above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Doing et al. U.S. Patent No. 6018759 discloses Thread switch tuning tool for optimal performance in a computer processor.
- b. Nilsen U.S. Patent No. 6438573 discloses Real-time programming method.
- c. Borkenhagen et al. U.S. Patent No. 6212544 discloses Altering thread priorities in a multithreaded processor.
- d. Diepstraten et al. U.S. Patent No. 6260150 discloses Foreground and background context controller setting processor to power saving mode when all contexts are inactive.

(10) Response to Argument

In the Arguments, Applicant argues in substance that cited claims clearly indicate that whether a task is eligible for eager execution is determined by considering whether execution of the task results in the initiation of a side-effect action. The Specification clearly teaches that “the execution of at least some of the tasks (so-called side-effect tasks) results in the initiation of a side-effect action performed by a component external to the workflow system.” (Page 2, lines 26 – 29 of the originally filed specification; emphasis added.) Thus, the definition of a side-effect action and the utilization of such an event to determine whether a task is eligible for eager execution are clearly defined in the disclosure.

As to the first argument, Examiner would like to point out that in the cited area of the specification given by the Applicant, there is no disclosure of where the task is being executed in the workflow system or what part of the workflow system is performing the processing of the task, whether or not it has a side-effect action is not the question nor where the side-effect action occurs.

In the Arguments, Applicant argues in substance that the present invention considers whether the execution of a task initiates a side-effect action (defined in the specification as being performed by a component external to the workflow system), whereas Borkenhagen adjusts the priorities of threads in response to instructions or events. Borkenhagen does not disclose or suggest considering whether the execution of a task results in a side-action being performed by a component **external** to the system. Thus, Borkenhagen does not disclose or suggest determining whether a task is eligible for eager execution by considering at least (1) a state of the task and (2) whether execution of the task results in the initiation of a side- effect action, as required by independent claims 1 and 12.

As to the second argument, Examiner would like to draw the Applicant's attention to the prior art of Borkenhagen, (column 20, lines 35 – 57), in which Borkenhagen teaches that “in addition, **external interrupt** activation may alter the corresponding thread's priority.” This section would make one of ordinary skill in the art interpret an event or interrupt as a “side-effect action” since it is not explicitly stated in the independent claims what would specifically constitute a “side-effect action”, leaving one to interpret as broadly as possible.

In the Arguments, Applicant argues in substance that

Applicants respectfully submit that, while Borkenhagen does describe a number of states for a task, there is no teaching in Borkenhagen of determining that one or more enabling conditions associated with the particular task will evaluate to true as determined by the state of the particular task. Applicants define enabling conditions in independent claims 1 and 12 (from which dependent claims 2 and 13, respectively, depend) as "one or more of said tasks each having one or more associated enabling conditions indicating whether the task is to be executed for said object." See also page 2, lines 24-26 of the present specification. There is no determination that an enabling condition for a task in Borkenhagen will evaluate to **true** as determined by the state of the task. Even if Borkenhagen does determine that an enabling condition for a task will evaluate to true, this determination is not made by using state of the task in Borkenhagen.

There is no disclosure in Borkenhagen of tasks that have enabling conditions as defined by and used in independent claims 1 and 12 and dependent claims 2 and 13. Consequently, Applicants respectfully submit that dependent claims 2 and 13 are patentable over Borkenhagen, alone or in combination.

As to the third argument, Examiner would first like to point out that in the claim language of claims 2 and 13, there is no description as to what constitutes an "enabling condition" and is therefore given a broad meaning. Examiner would now like to draw the Applicant's attention to the cited areas of Borkenhagen as disclosed in the Office Action dated 12/01/2004. In which, it is stated that a switch control register 410, which can be interpreted as

“**one** or more enabling conditions” has a value of **one**. It is well known in the computer art that a person skilled in the art understands that in certain cases the value of 1 can also have the meaning of “true” or “on” and the value of 0 can have the meaning of “false” or “off”. This determination is made by seeing what the state of the thread is and if it should be lowered or elevated from its current state which is determined by the thread switch control register 410 and the problem/privilege bit of the machine **state** register, (*“if bit 21 of the tread switch control register 410 has a value one, the thread switch manager can set the priority of its thread to one of three priorities represented in the thread state register at bits 18:19”*).

In the Arguments, Applicant argues in substance that Applicants can find no disclosure in Borkenhagen that Borkenhagen determines that a task is eligible for eager execution prior to determining that an associated enabling condition will evaluate to true, as claimed in dependent claims 3 and 14. Consequently, Applicants respectfully submit that dependent claims 3 and 14 are patentable over Borkenhagen.

As to the fourth argument, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In the Arguments, Applicant argues in substance that with regard to claims 5 and 16, which stand or fall together, these claims have the additional limitations of “wherein said step of determining whether a task is eligible for eager execution is performed by also considering (3) whether the

Art Unit: 2143

task contributes to the production of a target value." The Examiner asserts that Borkenhagen discloses this limitation (col. 3, line 55, to col. 4, line 6). Applicants respectfully disagree.

Applicants could find no disclosure or suggestion in Borkenhagen to determine whether a task contributes to the production of a target value. In fact, Applicants could find no disclosure or suggestion by Borkenhagen of a target value.

Consequently, Applicants respectfully submit that dependent claims 5 and 16 are patentable over Borkenhagen, alone or in combination.

As to the fifth argument, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In the Arguments, Applicant argues in substance that the Examiner points to col. 45, line 58 to col. 46, line 51 of Boutaud as teaching this limitation. Applicants read the cited sections of Boutaud as describing "conditional instructions" that can be or not be executed based on a condition. See, for instance, col. 46, lines 13-25 of Boutaud. Applicants respectfully submit that the cited text of Boutaud does not disclose any item that is partially evaluated. For example, if a condition in Boutaud is true, then certain conditional instructions are executed', if a condition in Boutaud is false, then those certain conditional instructions are not executed. See col. 46, lines 20-25 of Boutaud.

By contrast, an enabling condition of the present invention can be partially evaluated. For example, FIG. 20 shows the enabling condition "cust value < 7 and DNIS not = 'Australia-

Art Unit: 2143

promotion.”” The “cust value < 7” part of the enabling condition could be evaluated, which means that only part of the enabling condition “cust value < 7 and DNIS not = ‘Australia-promotion’” would be evaluated. In Boutaud, the conditional instructions are either executed or not executed, and there is no partial evaluation of the conditional instructions.

Thus, Applicants respectfully submit that independent claims 4 and 15 are patentable over Borkenhagen and Boutaud, alone or in combination.

As to the sixth argument, Examiner would like to point out that in the claim language, there is no teaching of what constitutes “partially evaluating on or more enabling conditions associated with said task”. As cited by the Examiner, the teaching of Boutaud in regards to an “IF THEN ELSE” condition code reads on what could be interpreted as “partially evaluating”. In the example, in an IF statement part of the condition is evaluated and a determination is made as to which direction to take if the condition is met. Applicant states in the arguments that “For example, FIG. 20 shows the enabling condition “cust value < 7 and DNIS not = ‘Australia-promotion.’” The “cust value < 7” part of the enabling condition could be evaluated, which means that only part of the enabling condition “cust value < 7 and DNIS not = ‘Australia-promotion’” would be evaluated. Examiner does not see how the above example is different since the example of FIG. 20 has “IF” statements. Furthermore, Applicant means to have the “enabling conditions” to mean multiple “IF” statements then the claim contradicts itself. In the claim it is stated that there can be “**ONE** or more enabling conditions”. Therefore, if there is only **ONE** enabling condition then the interpretation of the Examiner is clearly taught. The Applicant continues to state the claim limitation as if there were at least 2 enabling conditions, but this is not the case.

Furthermore, it would have been obvious to one of ordinary skill in the art to use more than one if statement since it has been held that mere duplication of the essential workings parts of a device involves only routine skill in the art, *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

In the Arguments, Applicant argues in substance that Boutaud does not disclose a partial evaluation of an enabling condition. Moreover, in Boutaud if a "conditional instruction" is considered to be a "task," then there is no determination that a particular conditional instruction (i.e., task) is necessary based on evaluation of an enabling condition of a second conditional instruction (i.e., "task"). Instead, in Boutaud, if a condition is or is not true, the "conditional instructions" are or are not executed, respectively, and conditional instructions do not depend on enabling conditions of other conditional instructions. Consequently, Applicants respectfully submit that dependent claims 6 – 8 and 17 – 19 are patentable over Borkenhagen and Boutaud.

As to the seventh argument, Examiner would like to refer to the **sixth** response to the arguments and apply the teachings to this argument, for they are similar and can be remedied in the same light.

In the Arguments, Applicant argues in substance that each of claims 10 and 20 has the limitations of "a graph representing data flow dependencies and enabling flow dependencies between tasks and enabling conditions" and "propagating changes through said graph based on new outputs of completed tasks." Claim 11 depends from claim 10 and claim 21 depends from claim 20. Van Praet discloses a "bipartite" graph where vertices represent storage elements in a processor or operations of a processor, and where edges represent connectivity of a processor

Art Unit: 2143

and data flow from storage. See col. 8, lines 51-57 of Van Praet. Smith discloses a graph where each node represents a logic gate and the branches represent input or output lines. See col. 5, lines 51-58 of Smith. In the present invention, as described above, a task has one or more associated enabling conditions indicating whether the task is to be executed for an object (see, e.g., independent claims 1 and 12). Furthermore, a task can produce an output that is used in an enabling condition for another task. See, for instance, FIG. 26 and associated text on pages 36 and 37 of the present specification, where it states the following:

This diagram illustrates the data Flow dependencies and the enabling flow dependencies of the workflow described above. Each of the modules (ovals) and enabling conditions (hexagons) are represented as nodes with solid line data flow edges representing data flow dependencies and broken line enabling flow edges representing enabling flow dependencies.

If a “task” of the present invention is a store element or processor of Van Praet, while Van Praet might, for sake of argument, show a data flow dependency in a 30 graph, there is no disclosure of an enabling flow dependency in the graph. Similarly, if a “task” of the present invention is a logic gate, while Smith might, for sake of argument, show a data flow dependency in a graph, there is no disclosure of an enabling flow dependency in the graph. In other words, in both Van Praet and Smith, only one data dependency (e.g., “edge” or “connection”) is shown between nodes, while claims 10 and 20 require two types of data dependencies. Consequently, Applicants respectfully submit that dependent claims 10 and 20 are patentable over Borkenhagen, Van Praet and Smith, alone or in combination. Because claims 10 and 20 are patentable, their respective dependent claims 11 and 21 are patentable.

As to the seventh argument, Examiner would like to draw the Applicant's attention to the above, restated Office Action dated 12/01/2004, in which Van Praet is utilized to teach storing graphing data flow dependencies and enabling flow dependencies. First, it is well known in the art that if information is displayed or on a computing device it is stored in some way whether it be RAM, DRAM, CD or hard drive and is therefore taught by the prior art as cited above. In Van Praet, it is taught in figure 5 and column 5, lines 53 et seq., graphing data flow dependencies and enabling flow dependencies as data flow graph (DFG) and instruction set graph (ISG), (*"In this way the same relations are obtained as depicted in Fig. B, but with DFG and an ISG of much lower complexity"*). As to further support the teachings of Van Praet, the ISG it taught to have a set of instructions that enables an operation I in the ISG is called its enabling condition and denoted by enabling(i), (e.g., col. 8, line 64 – col. 9, line 15). Furthermore, DFG can be found starting at column 11, line 9. Therefore, Van Praet teaches both graphing data flow dependencies and enabling flow dependencies and storing such information, as can be broadly interpreted by the claim language.

Furthermore, when reviewing a reference the applicants should remember that not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection. In re Preda, 401 F. 2d 825, 159 USPQ 342 (CCPA 1968) and In re Shepard, 319 F. 2d 194, 138 USPQ 148 (CCPA 1963). Skill in the art is presumed. In re Sovish, 769 F. 2d 738, 226 USPQ 771 (Fed. Cir. 1985). Furthermore, artisans must be presumed to know something about the art apart from what the references disclose. In re Jacoby, 309 F. 2d 513, 135 USPQ 317 (CCPA 1962). The conclusion of obviousness may be made from common knowledge and common sense of a

Art Unit: 2143

person of ordinary skill in the art without any specific hint or suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969). Every reference relies to some extent on knowledge of persons skilled in the art to complement that which is disclosed therein. In re Bode, 550 F. 2d 656, 193 USPQ 12 (CCPA 1977).

In the Arguments, Applicant argues in substance the drawings were objected to under 37 CFR 1.83(a) for not showing every feature of the invention specified in the claims. In particular, the Examiner asserts that the “determining whether a task is eligible for eager execution by considering at least (1) a state of the task and (2) whether execution of the task results in the initiation of a side-effect action” must be shown in the drawings.

Applicants note that the limitation cited by the Examiner is shown in a multitude of drawings, including FIGS. 4, 6-8, 10-25 (see, enabling condition, side effect, and side effect function), 29, 30 (blocks 3022 and 3026), 36, and 37. Applicants believe that every feature of the invention specified in the claims is properly shown in the drawings.

As to the eighth argument, Examiner has taken Applicant’s arguments into consideration and is found persuasive. Therefore, Examiner wishes to withdraw the drawing objection stated in the Office Action dated 12/01/2004.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Art Unit: 2143

Respectfully submitted,


David England



Conferees:



DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100



RUPAL DHARIA
SUPERVISORY PATENT EXAMINER